DOCUMENT RESUME

ED 201 171 FL 011 838

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TITLE The Use of Variable Rules in Describing the Interlanguage of Second Language Learners.
INSTITUTION California Univ., Los Angeles. Dept. of English.
PUB DATE Jun 78
NOTE 17p.; In its Workpapers in Teaching English as a Second Language, Volume 12, p72-87, Jun 1978.

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS English (Second Language); *Grammar; *Interlanguage; Language Processing; *Language Research; *Language Usage; Language Variation; Negative Forms (Language); *Second Language Learning; Sociolinguistics

ABSTRACT

This study presents a formal device which can be used to display interlanguage variability while revealing its overall systematicity. Two types of variability are recognized: (1) production of a number of variant structures for a single target language structure at one point in time; and (2) variation over time that is attributable to the instability of interlanguage. A review of sociolinguistic approaches indicates that only through the application of both the variable rule and implicational scaling devices can one: (1) generalize about frequency of occurrence of non-target forms at any point in time, (2) get an overview of the directionality of the learner's interlanguage development, and (3) see the existence of irregularities in the changing interlanguage. The proposed approach is illustrated with Stauble's study of the English negation development exhibited by three native-speakers of Spanish. The rules that are constructed through use of the approach under discussion define the linguistic environment in which variant forms occur and state the percentage of certain utterances accounted for by each rule at each stage of development. (AMH)

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ED201171

Workpapers in Teaching English as a Second Language, Vol. 12.

The Use of Variable Rules in Describing the Interlanguage of Second Language Learners

Ann-Marie Stauble and Diane Larsen-Freeman

Introduction

Despite preoccupation with the search for systematicity in the L2 acquisition process, it has been obvious for some time now to second language acquisition researchers that they must also acknowledge the variability inherent in the process (Tarone, Frauenfelder and Selinker, 1976). Since the acquisition of grammatical structures does not occur instantaneously, the interlanguage of the L2 learner exhibits a great deal of variability and instability as the learner adjusts his grammar in an attempt to achieve conformity with the grammar of the target language. Once seen as irregular and random, there is increasing evidence that this variability is in itself highly patterned - that it is theoretically possible to predict which variant form of a target language structure will occur in a particular environment. The purpose of this paper is to suggest a formal device which can be used to display interlanguage variability while revealing its overall systematicity.

When we speak of variability in connection with the L2 acquisition process, we recognize two types.[1] The first type is manifested when an individual learner produces a number of variant structures for a single target language structure at one point in time. For example, if expression of the present progressive tense in English is the goal, many learners produce both the following variants often within one speech sample:

1. *He going. (main verb + ing)
2. *He's go. (auxiliary + main verb)

However, another type of variation also appears in L2 acquisition - variation over time attributable to the instability of interlanguage. As the learner proceeds with acquisition of the L2, different variant forms for the same target language structure may be produced, while others no longer occur in his repertoire. Perhaps the learner typified by the above example with the present progressive at one point in time would exhibit yet another variant of the target language structure at another point in time. Perhaps further along in his acquisition, he has mastered the correct syntactic form of the present progressive complete with auxiliary verb and ing morpheme, but he now overgeneralizes its applicability and uses it with more "stative" verbs incorrectly producing forms such as:

3. *He is knowing the answer.

Another possible example of variation over time occurs when no new structure is introduced in the learner's repertoire, but a structure which was predominantly produced at Time 1 is now the less-preferred structure at Time 2 - or no longer produced at all.

Even if we were to create two frequency distribution tables to describe the learner's performance at these two points in time, such tables might not be as desirable as what we propose for revealing the linguistic environments in which different forms are produced and the overall systematicity in the interlanguage of L2 learners. What we advocate in this paper is the adoption of a modified form of the variable rule as conceived and used by sociolinguists.

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Sociolinguistic Approaches

Sociolinguistic variation has been examined by Labov (1969), DeCamp (1971), Bickerton (1971, 1973, 1975), Bailey (1973) and Cedergren and Sankoff (1974) among others. They have adopted two basic approaches in examining linguistic variation: a quantitative paradigm (Labov, Cedergren and Sankoff) employing the formal device of variable rules and a dynamic paradigm (Bickerton, Bailey, DeCamp) employing the technique of implicational scaling. Through these paradigms, sociolinguists claim a patterning of regularities is observable within the linguistic variation of a speech community.

In his work on the English copula, Labov (1969) proposed incorporating systematic variation into linguistic description and theory by extending the concept of an optional rule of grammar to that of a variable rule where the predicted relative frequency of a rule operation is part of its structural description. According to Labov, variability of rule application results not only from the presence or absence of elements in the linguistic environment, but can also be affected by extra-linguistic factors such as style, age, social status, and ethnicity of the speaker.

Cedergren and Sankoff (1974) replaced Labov's emphasis on relative frequencies with an emphasis on probabilities. According to them, probabilities are fixed numbers inherent in the underlying rules which generate particular stuctures at certain frequencies. It is their contention that these probabilities are the part of the speaker's competence which measure tendencies for rule application in various environments. Thus, Cedergren and Sankoff have distinguished rule probability from rule frequency, the former reflecting competence and the latter performance.

Implicational scaling, sometimes called Guttman Scalograms, shows a binary relationship between linguistic features and language varieties. This kind of data-sorting device has been employed particularly by DeCamp and Bickerton in their study of the linguistic phenomena in creole languages which enable them to rank speech varieties or lects on a scale between those lects having linguistic features which are most remote from the target language to those which are nearest to the target language.

The data to be scaled is encoded in terms of two value judgements: + or -, 1 or 0. The scaled judgements are established by positing an arbitrary frequency threshold for each speaker's behavior. Above a certain frequency he is assigned 1 which indicated that the feature in question is present in the lect; below that frequency a value of 0 is assigned which indicates that the feature is absent in that lect. The result would be a triangular matrix such as the one below:

Features:	A	B	C	D
Lect 1:	1	1	1	1
Lect 2:	1	1	1	0
Lect 3:	1	1	0	0
Lect 4:	1	0	0	0

If the value of any square in the matrix is 1, it implies that the value of any square above and to the left is also 1. In other words, the presence (1) of a feature in a given square implies the presence of all features in the squares to the left and above that feature. A value of 0 implies that the value of any square below and to the right is also 0 or the absence (0) of a feature in a given square implies the absence of all features to the right and below it.

Variability and Second Language Acquisition

Within the field of L2, studies by L. Dickerson (1975), W. Dickerson (1976) and Gatbonton (1977) for phonology and by Hyltenstam (1977) and Andersen (1977) for syntax have attempted to show that the interlanguage of the second language learner can be described in terms of variable rules or implicational scales enabling us to both acknowledge the variability in a learner's performance and the regularities in his acquisition process.

It seems to us that these studies reflect the notion that "variability in primary speech data cannot be dismissed entirely as a feature of performance, but must to a considerable extent reflect the competence of its producers" (Bickerton, 1973:24). Consequently, if one is predisposed to writing a grammar for a learner at a particular point in his L2 acquisition, it becomes necessary to introduce into his grammatical rules a component which will generate the variable output observed. But in using a variable rule approach which will quantify and describe the patterning of linguistic variation at one point in time, one must not lose sight of the directionality in the dynamic process of second language acquisition.[2] That is, since second language acquisition is a dynamic process, the variability must not only be accounted for at any given point in time, but also must be accounted for over time. Thus, the sociolinguists' type of variable rule does not seem adequate for describing L2 acquisition data since its primary concern is with the linguistic and social environments which favor or disfavor rule application at a single point in time. As Tarone, Swain and Fathman note:

> To date, it has not been possible to write more economical descriptions of what is taking place in L2 acquisition; linguistic grammars usually describe language which is both systematic at a single point in time and stable over time. To date, we have been unable to find linguistic rules capable of handling both the variability and the instability of interlanguage (1976:29).

The implicational scaling approach (at least the way it has been used thus far by sociolinguists) would also seem to distort the gradient and variable nature of the interlanguage of a second language learner since the learner must be scored categorically + or - corresponding to whether he uses the target structure or not. In addition, implicational scales do not show the linguistic environment in which variant forms occur. However, this approach has the advantage over variable rules in that it reveals directionality in the development toward the target language.

It seems to us that only through the application of aspects of both the variable rule and implicational scaling approaches, can one capture generalizations not only about the frequency of occurrence of the various non-target forms at one time but also provide an overview of the directionality of the learner's interlanguage development and reveal the existence of any regularities

in the changing interlanguage. Our version of variable rules thus would both formally describe any single point of development exhibited in the learner's interlanguage and would also generate the learner's variable output at the various points along the developmental continuum.

We will illustrate our view of variable rules with Stauble's (1977) study of the English negation development exhibited by three native speakers of Spanish.[3] Since this illustration is based on such a small sample, the results are presented merely as a suggestive path of English negation development exhibited by native Spanish speakers. Hopefully this analysis will provide a basis of comparison for further studies of the interlanguage of L2 learners of English negation.

An Illustration of the Use of Variable Rules to Describe L2 Acquisition Data

In order to analyze the interlanguage of the three second language learners under investigation and to formulate variable rules to describe their interlanguage, the following procedure was employed for each of the three subjects:

Step I -- identifying the variants

The total number of utterances for each speech sample (tape) was identified in which the feature, i.e. negation, varied.

Step II -- categorizing the variants

The negative variants and the environments in which they varied for the total number of negative utterances were identified and categorized. This resulted in ten negative variant constructions exemplified in the following:

1. No + auxiliary, copula or main verb constructions

   The glass no will break.
   No is necessary.
   She no saw him.

2. Doesn't/don't + main verb constructions

   I don't saw him.
   The girl doesn't ate some soup.
   I don't going to tell you.
   I don't will come in five o'clock.

3. Non-standard auxiliary, copula + no/don't/doesn't constructions

   I will don't see you tomorrow.
   No, is no different.
   She'll doesn't come.

4. Standard auxiliary, copula (present tense) + not constructions

   He is not hungry.
   The baby is not crying.

5. Not + main verb constructions

   Somebody not coming.
   No, not is a, is a, red lollipop, is a red shoes.

6. Main verb + not/no constructions

   On the outside, we can run not inside of my class.
   Do no.

7. Standard auxiliary, copula (present and past tense) + not constructions

   He wasn't talking to the teacher.
   But we couldn't do anything.

8. Didn't + main verb (past tense) constructions

   I don't went to Costa Rica.
   Mary didn't saw him.

9. Do/does + not plus simple verb form constructions

   I don't like to write much.
   He doesn't ride bicycles.

10. Did + not plus simple verb form constructions

    I didn't see nobody.
    I didn't go to school.

The ordering of the constructions reflect a negation development remotest from negation (1) to closest to English negation (10).

Step III -- calculating the frequency of each negative variant construction

A ratio was calculated which indicated the frequency with which each negative variant construction was used in proportion to the total number of negative utterances in each speech sample (tape).[4] The percentage of occurrences of each negative variant construction for each speech sample for each subject is shown in Tables 1-3 (pages 6-8).

Step IV -- determining a pattern of development

From the preceding quantitative analysis of the negative variant constructions, a gradient pattern of variation was observed with regard to the variant construction used and its frequency of usage for the various samples (tapes). This pattern of variation reflects stages of development from an initial categorical non-standard pre-verbal negation rule. These stages of development seemed to be governed by the introduction of standard negative constructions, the elimination of non-standard negative constructions and also by the most dominant negative variant construction exhibited during that period. For each subject,[5] the stages of development or pattern of variation along with the frequency of each variant construction at each stage of development are shown in Table 4 (page 9).

This scaling revealed a continuum of developmental stages each closer than its antecedent toward the target language. (See Table 5, page 10).

TABLE 1

Jorge's Verbal Negation Development

VARIANT FORMS / Speech Samples (Tapes) / STAGES		total # of negatives	1 NO + aux/ cop/ main V (any tense)		2 don't/doesn't + main V (any tense)		3 aux/ cop + don't/ doesn't/ no		4 aux/cop + not (present tense)		5 not + main V		6 main V + no/not		7 aux/cop + not (any tense)		8 didn't + main V (past tense)		9 DO-AUX do/does + not + simple verb		10 DO-AUX did + not + simple verb	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Mid Stage I	1	6	(3)	50	(2)	33			(1)	17												
	2	4	(4)	100																		
	3	21	(20)	95									(1)	5								
	4	1	(1)	100																		
Early II	5	62	(20)	32	(28)	45			(14)	23												
Mid Stage II	6	3			(3)	100																
	7	64			(51)	80	(7)	11	(6)	9												
	8	54	(1)	2	(41)	76	(7)	13	(5)	9												
Late Stage II	9	41	(1)	2	(3)	7	(8)	20	(8)	20							(3)	7	(15)	37	(3)	7
	10	30			(1)	3	(10)	33							(1)	3			(10)	33	(8)	27
	11	48	(3)	6	(4)	8									(11)	23			(19)	40	(11)	23
	12	29													(4)	14			(16)	55	(9)	31
	13	25			(1)	4									(3)	12			(14)	56	(7)	28
	14	41			(5)	12									(7)	17			(20)	49	(9)	22
	15	29			(1)	3									(12)	41	(1)	3	(10)	34	(5)	17
	16	17													(9)	53			(7)	41	(1)	6
	17	78			(1)	1									(30)	38	(3)	4	(34)	44	(10)	13
	18	57													(22)	39	(4)	7	(26)	46	(5)	9
Stage III	19	40													(17)	43			(12)	30	(11)	27
	20	48													(15)	31			(26)	54	(7)	15

Percentage of each variant construction in proportion to the total number of negative utterances of each tape

TABLE 2

Marta's Verbal Negation Development

Stages	Speech Samples (Tapes)	total # of negatives	1 NO + aux/ cop/ main V (any tense) #	1 %	2 don't/doesn't + main V (any tense) #	2 %	3 aux/ cop + don't/ doesn't/ no #	3 %	4 aux/cop + not (present tense) #	4 %	5 not + main V #	5 %	6 main V + no/not #	6 %	7 aux/cop + not (any tense) #	7 %	8 didn't + main V (past tense) #	8 %	9 DO-AUX do/does + not + simple verb #	9 %	10 DO-AUX did + not + simple verb #	10 %
Late Stage I	1	—																					
	2	2	(1)	50	(1)	50																	
	3	8	(4)	50	(2)	25			(2)	25													
	4	3	(2)	67			(1)	33															
	5	2	(2)	100																			
Early Mid II	6	14	(1)	7	(6)	43	(7)	50															
Mid Stage II	7	24			(17)	71	(5)	20			(2)	8											
	8	32			(26)	81			(5)	16	(1)	3											
	9	35			(14)	40	(3)	9	(18)	51													
	10	50			(33)	66	(1)	2	(16)	31													
Late Stage II	11	41			(4)	13	(11)	3					(2)	6	(11)	35			(11)	35	(2)	6	
	12	55			(1)	2									(32)	59			(21)	38	(1)	2	
	13	60			(1)	2	(1)	2			(1)	2	(2)	3	(29)	48			(18)	30	(8)	13	
	14	36													(25)	70	(1)	3	(8)	22	(2)	3	
	15	69	(2)	3	(3)	4					(2)	3	(1)	1	(32)	46	(4)	6	(19)	28	(6)	9	

Percentage of each variant construction in proportion to the total number of negative utterances of each tape

TABLE 3

Juan's Verbal Negation Development

Stages		total # of negatives	1 NO + aux/ cop/ main V (any tense)		2 don't/doesn't + main V (any tense)		3 aux/ cop + don't/ doesn't/ no		4 aux/cop + not (present tense)		5 not + main V		6 main V + no/not		7 aux/cop + not (any tense)		8 didn't + main V (past tense)		9 DO-AUX do/does + not + simple verb		10 DO-AUX did + not + simple verb	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Early Mid Stage II	1	9	(2)	22	(6)	67			(1)	11												
	2	7			(7)	100																
	3	30			(10)	23	(3)	10	(17)	57												
Late Stage II	4	10			(1)	10									(5)	50			(3)	30	(1)	10
	5	43			(2)	2									(12)	29			(23)	56	(6)	12
	6	4													(3)	75					(1)	25
	7	22			(1)	4									(11)	50			(5)	23	(5)	23
	8	36			(4)	11									(13)	36	(2)	5	(17)	47		
	9	38													(24)	64			(10)	26	(4)	11
	10	30			(6)	20									(12)	40			(12)	40		
	11	33			(4)	12									(14)	42	(1)	3	(14)	42		
	12	27			(2)	7									(13)	48	(3)	11	(9)	33		
	13	41			(17)	43	(1)	2							(10)	24	(3)	7	(10)	24		
	14	31													(13)	41			(14)	45	(4)	13
	15	76													(31)	41	(3)	4	(24)	32	(18)	24
Stage III	16	42													(13)	31			(12)	29	(17)	40
	17	39			(1)	3									(19)	49			(11)	28	(8)	21
	18	36													(18)	50			(9)	25	(9)	25

Percentage of each variant construction in proportion to the total number of negative utterances of each tape

TABLE 4
Summary of Tables 1-3

	VARIANT FORMS / STAGES	total # of negatives	1 NO + aux/ cop/ main V (any tense)		2 don't/doesn't + main V (any tense)		3 aux/ cop + don't/ doesn't/ no		4 aux/cop + not (present tense)		5 not + main V		6 main V + no/not		7 aux/cop + not (any tense)		8 didn't + main V (past tense)		9 DO-AUX do/does + not + simple verb		10 DO-AUX did + not + simple verb	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
JORGE	Mid Stage I	32	(28)	88	(2)	6			(1)	3			(1)	3								
	Early Stage II	62	(20)	31	(28)	45			(14)	23												
	Mid Stage II	121	(1)	.8	(95)	79	(14)	11	(11)	9												
	Late Stage II	395	(7)	2	(16)	4	(18)	5							(104)	26	(11)	3	(171)	43	(68)	17
	Stage III	88													(32)	36			(38)	43	(18)	20
MARIA	Late Stage I	15	(9)	60	(3)	20	(1)	6	(2)	13												
	Early Mid Stage II	14	(1)	7	(6)	43	(7)	50														
	Mid Stage II	141			(90)	64	(9)	6	(39)	28	(3)	2										
	Late Stage II	251	(2)	.8	(9)	4	(2)	.8			(3)	1	(5)	2	(129)	51	(5)	2	(77)	31	(19)	8
JUAN	Early Mid Stage II	46	(2)	4	(23)	50	(3)	7	(18)	39												
	Late Stage II	389			(36)	9	(1)	.3							(161)	41	(12)	3	(141)	36	(38)	10
	Stage III	117			(1)	.8									(50)	43			(32)	27	(34)	29

Percentage of each variant construction for each stage of development

TABLE 5

Summary of the Negation Development of the 3 Learners Average Percentage of Variant Usage at Each Stage

	VARIANTS / STAGES	TOTAL	1	2	3	4	5	6	7	8	9	10
Stage I	Mid I	32	88%	6%	—	3%	—	3%	—	—	—	—
	Late I	15	60%	20%	6%	13%	—	—	—	—	—	—
Early Stage II	Early II	62	31%	45%	—	23%	—	—	—	—	—	—
Mid Stage II	Early Mid II	60	5%	48%	16%	30%	-	—	—	-	—	—
	Mid II	262	.3%	71%	9%	19%	1%	—	—	—	—	—
Late Stage II	Late II	1033	.9%	6%	2%	-	.2%	.5%	38%	3%	38%	12%
Stage III	III	205	—	.5%	—	—	—	-	40%	—	34%	25%

TABLE 6

Average Percentage of Negative Utterances Accounted for by Each Variable Rule at each Stage of Development

VARIABLE RULES / STAGES	1	2	3	4	5	6	7	8
Stage I	79%	11%	6%	2%	—	2%	—	—
Early Stage II	32%	45%	23%	—	—	—	—	—
Mid Stage II	3%	66%	10%	19%	.9%	—	—	—
Late Stage II	.9%	6%	—	2%	.2%	.5%	3%	88%
Stage III	—	.5%	—	—	—	—	—	99.5%

Step V -- formulating variable rules

From the pattern of variation exhibited in the interlanguage of the 3 second language learners, we could now write variable rules to display this pattern of negation development. Based on the negative variant constructions exhibited in each stage of development, 8 variable rules were written. Included with each rule is the average percentage[6] of negative utterances it accounts for at each stage of development. They are as follows:

Variable rules: From an initial pre-verbal negation to a final English post-verbal negation rule

1. Negative $\longrightarrow$ (No) / ___ $\left\{\begin{bmatrix}+\text{ auxiliary}\end{bmatrix} \\ \begin{bmatrix}+\text{ copula}\end{bmatrix} \\ \begin{bmatrix}+\text{ main verb}\end{bmatrix}\right\}$

	Stage I	Early Stage II	Mid Stage II	Late Stage II	StageIII
Average % of negative utterances accounted for by this rule	79%	32%	1%	.9%	--

2. Negative $\longrightarrow \left(\begin{bmatrix}+\text{ don't/doesn't} \\ -\text{ analyzed}\end{bmatrix}\right) / \text{___} \left\{\begin{bmatrix}+\text{ main verb} \\ +\text{ present tense} \\ +\text{ past tense}\end{bmatrix} \\ \begin{bmatrix}+\text{ auxiliary} \\ -\text{ do auxiliary} \\ -\text{ past tense}\end{bmatrix} \\ \begin{bmatrix}+\text{ copula} \\ -\text{ past tense}\end{bmatrix}\right\}$

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
11%	45%	66%	6%	.5%

3. Negative $\longrightarrow$ (not) / $\left\{\begin{bmatrix}+\text{ auxiliary} \\ -\text{ do auxiliary} \\ -\text{ past tense}\end{bmatrix} \\ \begin{bmatrix}+\text{ copula} \\ -\text{ past tense}\end{bmatrix}\right\}$ ———

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
6%	23%	21%	--	--

4. Negative → $\begin{pmatrix} \text{no} \\ \text{don't} \end{pmatrix}$ / $\left\{ \begin{bmatrix} + \text{ auxiliary} \\ - \text{ do auxiliary} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix} \right.$ $\left. \begin{bmatrix} + \text{ copula} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix} \right\}$ _____

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
2%	--	53%	2%	--

5. Negative → (not) / _____ $\begin{bmatrix} + \text{ main verb} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix}$

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
--	--	.9%	.2%	--

6. Negative → $\begin{pmatrix} \text{no} \\ \text{not} \end{pmatrix}$ / $\begin{bmatrix} + \text{ main verb} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix}$ _____

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
2%	--	--	.5%	--

7. Negative → ($\begin{bmatrix} + \text{ didn't} \\ - \text{ analyzed} \end{bmatrix}$) / _____ $\begin{bmatrix} + \text{ main verb} \\ + \text{ past tense} \end{bmatrix}$

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
--	--	--	3%	--

8. Negative $\rightarrow$ not / $\left\{ \begin{bmatrix} + \text{ auxiliary} \\ + \text{ do auxiliary} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix} \right\}$ ———
$\left\{ \begin{bmatrix} + \text{ copula} \\ + \text{ present tense} \\ + \text{ past tense} \end{bmatrix} \right\}$

Stage I	Early Stage II	Mid Stage II	Late Stage II	Stage III
--	--	--	88%	99.5%

These formulized variable rules at each stage of development constitute hypothetical or approximate grammars of the target language which the three second language learners of English negation have constructed in their process of acquiring the target language.

Table 6 (page 14) is a record of what has occurred in the developing interlanguage of the three second language learners of English negation which is describable in terms of variable rules and the average percentage of negative utterances accounted for by each variable rule at each stage of development.

Conclusion

We have argued in this paper that there is a need in second language acquisition research for a formal device which will display variability and systematicity in the L2 acquisition process. It seems to us that the device which does this best is a form of the variable rule used by sociolinguists. The rules we have constructed here define the linguistic environment in which variant forms occur and state the percentage of certain utterances accounted for by each rule at each stage of development.

Formation of such rules allowed us to describe the interlanguage of three Spanish speakers as they were in the process of acquiring English negation. From the description one can see that the variation in the interlanguage of these learners is not random and unpredictable, but rather patterned and rule-governed. This patterning of variation seems to reflect grammatical changes and stages of development in the interlanguage of learners as they progress through time from using an initial categorical non-standard pre-verbal negation rule to the eventual acquisition of the categorical standard English post-verbal negation rule. Each stage of development represents a step closer than its antecedent in the direction of the target language. As a result, the developing interlanguage of the second language learner can be characterized by a continuum of non-discrete developmental stages which are describable by variable rules.

Footnotes

[1]In addition to the two types discussed here, there is also the possibility of variable performances among learners (Hatch and Wagner-Gough, 1976). Dif-

ferences among learners may only involve the rate at which the learning takes place, however, not the sequence of stages. The type of variable rule being offered in this paper will hopefully allow us to compare learners' performances.

[2]Bickerton (1971) makes this same observation for language change in general. He sees language as a dynamic process evolving through time and space. Variants which do not fit any system are seen as the inevitable consequence of such a dynamic process.

[3]The data for the three subjects, Jorge, Marta and Juan, were provided by three ten-month longitudinal studies undertaken by Cazden, Cancino, Rosansky and Schumann (1975).

[4]This calculation technique was adopted from Cazden, Cancino, Rosansky and Schumann (1975).

[5]The stages listed for each subject are different as the subjects were not all at the same level of English proficiency.

[6]These percentages will obviously have to be modified as data from more learners are analyzed.

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